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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/344,826	06/25/1999	KOK S. CHEN	P2290	9502

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06/17/2003

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EXAMINER

BRINICH, STEPHEN M

ART UNIT

PAPER NUMBER

2624

DATE MAILED: 06/17/2003

13

Please find below and/or attached an Office communication concerning this application or proceeding.

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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
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Commissioner for Patents

Office Action Summary

Application No.

09/344,826

Applicant(s)

CHEN ET AL.

Examiner

Stephen M Brinich

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 07 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-67 is/are pending in the application.
- 4a) Of the above claim(s) 44-67 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2,3,5,7,9-11,13,15,17-19,21,23 and 25-43 is/are rejected.
- 7) ☒ Claim(s) 4,6,8,12,14,16,20,22 and 25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restriction

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-43, drawn to a halftoning arrangement in which halftone features are varied between images, classified in class 358, subclass 3.14.

II. Claims 44-60, drawn to a halftoning arrangement with variable placement of a halftone screen location, classified in class 358, subclass 3.20.

2. Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention I has separate utility such as a halftone screening arrangement in which properties other than screen start position vary between images. See MPEP § 806.05(d).

3. Because these inventions are distinct for the reasons given above and the search required for Group II (e.g. 358/3.07) is not required for Group I, restriction for examination purposes as indicated is proper.

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4. Newly submitted claims 44-67 are directed to an invention that is independent or distinct from the invention originally claimed for the reasons described above

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 44-67 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 102

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 2-3, 5, 7, 9-11, 13, 15, 17-19, 21, 23, & 25-43 are rejected under 35 U.S.C. 102(b) as being anticipated by Judice.

Re claims 2-3, 5, 7, 9-11, 13, 15, 17-19, 21, 23, & 25, Judice discloses (column 5, lines 28-46) a halftone arrangement in which a halftone signal for a first frame is generated in a conventional manner by applying a stored spatial halftoning array to an image (first halftoning technique), and a halftone signal for a subsequent frame is generated by identifying the halftone pixels which are different from those in the preceding frame and transmitting only the information relating to these changed halftone pixels (second halftoning technique).

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Re claims 26, 32, & 38, the resulting halftone frames generated from input images via these two halftoning arrangements are output as corresponding frames of an output image.

Re claims 27, 33, & 39, Judice discloses a halftoning process applied to the entire image, which inherently requires the starting of the halftone process with the first pixel thereof.

Re claims 28-29, 34-35, & 40-41, the second halftoning technique of Judice operates specifically upon those pixels that differ from corresponding pixels in the previous image. Thus, the starting point of the halftone technique applied to a second image (readable on "after a certain number of input images", with the "certain number" being one) would be offset from the starting point of the halftone technique applied to the first image in any case in which the first pixels of the two images are identical.

Re claims 30-31, 36-37, & 42-43, Judice discloses (Figures 2-3) a tiled spatial halftone pattern.

Allowable Subject Matter

7. Claims 4, 6, 8, 12, 14, 16, 20, 22, & 25 are objected to as being dependent upon a rejected base claim, but would be

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allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter:

Re claims 4, 12, & 20, the art of record does not teach or suggest the recited interframe sequencing of halftone techniques.

Re claims 6, 14, & 22, the art of record does not teach or suggest the recited real-time halftone determinations.

Re claims 8, 16, & 24, the art of record does not teach or suggest the recited halftone technique parameter alteration.

Response to Arguments

9. Applicant's arguments filed 07 April 2003 have been fully considered but they are not persuasive.

Applicant argues (Paper #12, page 15, line 20 - page 16, line 14) that the art of record (in particular, Judice) fails to teach or suggest the use of two different halftone techniques, with the halftone technique changed after a predetermined number of images have been halftoned or at random times. Applicant describes Judice as using only one halftone technique for halftoning, and then generating signals for subsequent frames by identifying the halftone pixels that are different from those in the preceding frame.

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However, it is not clear how Applicant's recitation of "two halftone techniques" (as recited in the independent rejected claims 2, 7, 10, 18) precludes a reading upon the Judice system of performing a standard halftoning on a first image (this being a "first halftone technique") and then performing a standard halftoning followed by an identification of changed pixels (this combination being a "second halftone technique"). In this case, the halftoning technique is changed after a predetermined number (one) of images. Examiner is uncertain as to the significance of Applicant's argument concerning the feature of changing halftone techniques "at random times", as it is not evident where such a feature is recited in the presently rejected claims.

Conclusion


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. Brinich at 703-305-4390. The examiner can normally be reached on weekdays 7:00-4:30, alternate Fridays off.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Tech Center 2600 Customer Service center at 703-306-0377.

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If attempts to contact the examiner and the Customer Service Center are unsuccessful, supervisor David Moore can be contacted at 703-308-7452.

Faxes pertaining to this application should be directed to the Tech Center 2600 official fax number, which is 703-872-9314.


Stephen M Brinich
Examiner
Art Unit 2624

smb
June 16, 2003